

Joint Committee on Boards, Commissions and Consumer
Protection

BACKGROUND PAPER FOR HEARING JANUARY 6, 2005

BOARD FOR GEOLOGISTS AND GEOPHYSICISTS

BACKGROUND, IDENTIFIED ISSUES, AND QUESTIONS

BRIEF OVERVIEW OF THE PROFESSION OF GEOLOGISTS AND GEOPHYSICISTS AND THE BOARD OF GEOLOGISTS AND GEOPHYSICISTS

The Board of Geologists and Geophysicists (Board) examines and licenses professionals who deal with geology. “Geology” and “Geophysics” are defined in the B&P Code:

“‘Geology’, as used in this chapter, refers to that science which treats of the earth in general; investigation of the earth's crust and the rocks and other materials which compose it; and the applied science of utilizing knowledge of the earth and its constituent rocks, minerals, liquids, gases and other materials for the benefit of mankind.” (B&P Code sec. 7802)

“‘Geophysics,’ as used in this chapter, refers to that science which involves study of the physical earth by means of measuring its natural and induced fields of force, including, but not limited to, electric, gravity, and magnetic, and its responses to natural and induced energy and the interpreting of these measurements and the relating of them to the physics of the earth.” (B&P Code sec. 7802.1)

The Board has jurisdiction over Registered Geologists, Registered Geophysicists, Certified Engineering Geologists and Certified Hydrogeologists in California.

Prior to 1967, California registration of the practice of geology did not exist.¹ As a result, some serious problems developed. For example, prior to registration, housing tracts were built without the benefit of regulated and licensed geologists. Many of these tracts were built on hillsides. In 1962, southern California experienced a region-wide geologic disaster due to heavy rains and the resulting landslides involving some of these developments.

In California, cities began having a policy interest in the work of geologists following those landslides, starting with an amendment to the City of Los Angeles grading ordinance that required geologic reports for hillside development. Other Southern California cities and counties followed with their own ordinances. Each city agency developed its own ordinances and qualifications for geologists, but they were not consistent with one another. Gradually it became clear that there was a need to establish both uniform statewide standards and a mechanism for statewide licensure. The uniform licensure standards would not only provide for the mobility of the professional geologists throughout the state, but the public would directly benefit from increased competition among the geologists.

The City and County of Los Angeles, along with cities and counties of Ventura and Orange, worked toward a statewide geologist regulation bill in 1967. In 1968, with the support of the American Association of Petroleum Geologists and its Pacific Section, the American Institute of Professional Geologists, the San Joaquin Geological Society, and the Association of Engineering Geologists, the state passed its first license act. Statewide licensure that followed implementation of the 1968 California geologists licensing act (signed into law by Governor Ronald Reagan) provided a qualified pool of geologists throughout the state to meet the growing demand for engineering geologic services as stronger grading ordinances became more widespread.

There is little doubt of the harm that can be suffered when dams, roads, bridges, buildings and other construction projects have not been properly analyzed for potential geologic hazards. The avoidable damage can result in injuries, deaths, disruption of lives, destruction of property and consumption of tax dollars. With sound geologic input, appropriate review by public agencies, and implementation of the geologic recommendations during construction, much of this damage and loss can and should be avoided. In addition to these more obvious dangers, licensees of the Board assist with environmental remediation and groundwater resources including contamination of groundwater supplies by leaking underground storage tanks, land application of industrial waste, leaking landfills and salt-water intrusion due to groundwater withdrawal.

BOARD MEMBER	APPOINTED BY	POSITION	TERM EXPIRATION
William E. Black	Governor	Geophysicist	6/1/05
Craig A. Copelan	Governor	Public Member	6/1/06
Dr. Robert Matthews	Governor	Eng. Geologist	6/1/05
Jeffrey Schmidt, Chair	Senate Rules	Public Member	6/1/07
Vacant	Governor	Petr. Geologist	6/1/07
Vacant	Governor	Public Member	6/1/06

¹ This description is taken, in large part, from the Board's Sunset Review Report. For more detailed information, refer to that report's much more extensive discussion.

Vacant	Assembly Speaker	Public Member	6/1/07
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PRIOR SUNSET REVIEW

The Board was last reviewed in 1998/99. In April of 2000, the Committee approved six recommendations, all of which the Board implemented. However, since that review, the Board's staff has been dramatically reduced from eight down to its current four employees. Because of the prior Administration's hiring freeze, the Board was unable to fill vacancies from retirements, separations and transfers.

Most recently, in 2003, SB 1079 (Figueroa) provided for more flexibility in the experience requirements necessary to qualify for the Board's licensing examinations. Under prior law, a non-degreed professional could apply for licensure if they had a minimum of seven years of experience and a certain prescribed level of upper division college courses. The new law, which became effective on January 1, 2004, states that a Bachelor's degree in geology is required, along with a minimum of three years of experience prior to being allowed to sit for the licensing examination. An applicant with a Master's or Doctorate degree in geology needs only two years of experience working under the responsible charge of a licensed Registered Geologist or licensed Civil Engineer to qualify for the licensing examinations.

NEW ISSUES

ISSUE #1: Whether the Board for Geologists and Geophysicists should be continued.

Issue #1 question for the Board: *Is it most appropriate for geologists and geophysicists to be regulated by the current Board, or would some other regulatory or oversight option for dealing with these professionals better serve the public interest?*

Background: This year, Governor Schwarzenegger's California Performance Review (CPR) undertook an overall examination of state government in an effort to understand whether current structures are the most effective means of performing the functions the public expects. Among many other things, the CPR report recommended that the Board for Geologists and Geophysicists (Board) be eliminated, and its functions combined with those of other entities. The CPR report makes two recommendations, one part of a larger and more sweeping reorganization and one more modest.

A. Sweeping Reorganization

The more sweeping plan would place the Board in a new Division of Land Management within a new Super-Department of Natural Resources. The Board would be housed in the new Land Management Division along with:

- Office of Mine Reclamation from Department of Conservation;
- California Geological Survey from Department of Conservation;
- Division of Land Resource Protection from Department of Conservation;
- Environmental Planning and Managing from State Lands Commission;
- Mineral Resources Management from State Lands Commission, with the exception of energy-related leases;
- Land Management from State Lands Commission, with the exception of school lands management;
- Resource Management from California Department of Forestry;
- California Environmental Quality Act guidelines and Clearinghouse functions of the Office of Planning and Research;
- Land acquisition activities from State Lands Commission, Wildlife Conservation Board and Department of Parks and Recreation; and
- Board of Mining and Geology. (*California Performance Review Report*, Vol. 2, "Form Follows Function," Ch. 8)

This is part of a much larger restructuring of state government proposed in the initial CPR report. However, the Governor's appointed CPR Commission has failed to support many of the most ambitious proposals, including this one, and it is unclear at present what parts of the CPR report the Governor will ultimately propose.

B. Modest Reorganization

The more modest proposal in the CPR for the Board is to combine it with the current State Mining and Geology Board. Here is the relevant analysis and recommendation from the CPR Report:

"The State Mining and Geology Board (SMGB) was established in conjunction with the Surface Mining and Reclamation Act (SMARA). It serves as a regulatory, appeals, enforcement, and policy body representing the state's interest in geology, geologic and seismologic hazards, conservation of mineral resources, and reclamation of lands following surface mining activities. The SMGB is

granted autonomous policy, regulatory, and appeals authority under the Seismic Hazards Mapping Act, the Alquist-Priolo Earthquake Fault Mapping Act and the Surface Mining and Reclamation Act. The SMGB provides a necessary public forum for individuals and professional associations to appeal decisions made by local governments or enforcement actions of the Department of Conservation's Office of Mine Reclamation.

The SMGB has strong support from most cities and counties because of its role as an accessible state regulatory, appeals, and policy organization that assists local jurisdictions to solve problems involving surface mining operations and reclamation, as well as establishing geological and geophysical criteria for earthquake and geologic hazards. The SMGB serves as the lead agency under SMARA when local jurisdictions fail to perform their responsibilities. Funding for the Board comes from the Surface Mining and Reclamation Account funds (federal royalties from mineral extraction) and totals \$300,000 for nine part-time SMGB members and two full-time staff.

Established in 1968, the Board examines and licenses registered geologists, geophysicists, certified engineering geologists and hydrogeologists. It also hears public complaints about persons practicing geology and geophysics not in accordance with professional standards. The Board provides enforcement actions, information and outreach programs to consumers. The Board is supported wholly by registration fees, application fees for its licensing examinations and fines and cost recoveries from enforcement actions. Current costs to support the Board are \$736,000 for seven board members and three personnel years.

Duplication of the state's regulatory and registration functions have been under scrutiny for many years. A 1989 Little Hoover Commission report ... concluded that the State's boards and commissions are proliferating without adequate evaluation of need, effectiveness and efficiency. This lack of control may cost the state not only dollars but also wasted resources, duplicated efforts and the adoption of policies that may run counter to the general public's interest. Numerous organizations have been created that have similar functions ... The overlap becomes particularly troublesome when both bodies are regulatory in nature.

The State can increase efficiency, save money and maintain a high level of service for geologic programs by merging the existing functions of the Board into the SMGB. Consolidation of the functions of the Board within the SMGB provides efficiencies, economies of scale, and "one-stop shopping" for the public, local jurisdictions and the practicing professionals who could go to one agency for information on geology, mining and reclamation issues, geologic and geophysical practitioners and licensing/registration requirements. The Board enforcement process is straight forward; transferring enforcement authority to the SMGB

would simplify the enforcement process and allow the use of administrative law judges within the new administrative structure.

Supporters for these changes include the Department of Conservation, the California Council of Geological Organizations and professional practitioners and the Association of Engineering Geologists.”

(*California Performance Review Report*, Vol.4b, p. 1001, RES08)

The Board tends to agree with this reasoning. However, it points out a number of potential issues that must be considered if any restructuring along these lines is to become a reality:

- (1) The Board believes that all of the current functions it has responsibility for should continue in the new entity unchanged.
- (2) All of the Board’s funds come from licensing fees – it relies on no General Fund money at all, unlike the SMGB.
- (3) The Board currently has a public member majority, while the SMBG has only a single public member.
- (4) The Board’s Executive Officer oversees a budget that is three times the amount overseen by the E.O. of the SMGB, and suggests that the Board’s E.O. be retained. (*Board’s Oct. 5, 2004 letter in response to Committee Questions*, pp. 1-2)

C. Other options

Finally, a third possibility would be to turn the Board into a Bureau within Department of Consumer Affairs. This proposal was initially made in the Board’s 1996 Sunset Review, along with the possibility of merging the regulation of geologists with that of professional engineers.

D. Analyzing the Options

The Board deals with a small but important group of licensees. Because of this, it is one of the smallest Boards in DCA, with a staff of only four – down from a high of eight. It also has much less contact with ordinary consumers on a day-to-day basis than is common among DCA boards; consumers who deal with licensed geologists tend to be more sophisticated (government, developers, businesses) than is the norm for other boards. Less than a majority of the Board’s complaints come in from the general public. And the number of complaints is relatively low – only 29 total complaints were filed with the Board 2003/04, from a four-year high of only 38 (in 2000/01).

Moreover, the Board’s funding is slowly approaching deficits. While the Board reports its current reserves are at 9.9 months, those reserves are projected to decline to 1.9 months by Fiscal Year 2007-08. A considerable part of the problem is the lack of growth among the number of

licensees. Last year, SB 363 (Figueroa) gave the Board authority to increase its fees, which the Board anticipates will go into effect in the Fall of 2004. It is, though, not yet clear what effect this will have on the Board's finances. And, in any event, raising fees to licensees will not stop the erosion of the number of licensees, if there are not larger numbers of new graduates who are intending to practice in this field.

The more sweeping reorganization of state government that would incidentally include the geological profession is outside the scope of this committee. At least as outlined in the CPR report, it would most likely be proposed by the Governor as part of a Government Reorganization Plan, a process that is, itself, set out in statute. Nevertheless, when – or if – the Governor, himself, adopts and introduces any proposals, Committee staff will be following those proposals, and determine to what extent they overlap with, or otherwise affect, the review of the Board.

The CPR's more modest proposal is something this Committee could, itself, propose for legislative implementation. While the benefits of consolidation are appealing on the surface, there would necessarily be some cost involved in combining the Board with the SMBG. Because such costs are, themselves, potentially considerable, it is possible they would outweigh any benefits from the restructuring.

In addition, the Board's license fees and special fund may not fit comfortably with the SMBG's General Fund appropriations. In any consolidation, this would have to be addressed carefully.

Similarly, the normal licensing/discipline/enforcement functions of a Department of Consumer Affairs (DCA) board that this Board carries out on a regular basis would be foreign to the functions currently engaged in by the SMBG. The SMGB is located within the Department of Conservation. As such, it has a regulatory function, but does not license professionals who practice geology, or any other occupation. Its primary focus is on proper use of the state's mineral resources. This is a considerably different focus from the Board, which has its primary interest in the qualifications and competence of the professionals who practice geology in the state.

ISSUE #2: Board membership requirements.

Issue #2 question for the Board: *Does policy require a Petrogeologist as a Board member?*

Background: B&P Code section 7811 requires that at least one member of the Board be a Petroleum Geologist. However, this position on the Board has been vacant for well over a year, and the DCA has been unable to find suitable candidates even for nomination to this slot.

According to the Board, there have historically been more Petrogeologists licensed than is now the case. In recent years that number has dropped significantly. In addition, because of the global nature of the field of Petrogeology, California licensees very frequently practice their

profession outside of California, and often outside of the United States for long periods of time. Finally, of those who do have this specialty, there are very few who do not have a conflict of some kind that would prohibit them from serving on the Board, either because of some professional or ethical conflict, or because of the time commitment Board membership would require.

There appears to be no compelling public policy reason that the Board have a Petrogeologist member.